Claims

What is claimed is:

1.   A system for cutting shingles from a continuous sheet of material comprising:

a cylinder having a circumference substantially equal to twice the length of each shingle;

a cutting blade assembly extending around the outer surface of the cylinder and adapted to cut four different patterns in the strip with each pattern forming two shingles; and

means for rotating the cylinder with the blades engaging the sheet while effecting relative translational movement between the cylinder and the sheet so that eight shingles are cut from the sheet upon one rotation of the cylinder.

2.   The system of claim 1 wherein the cutting blade assembly comprises two spaced parallel series of cutting blades, each series extending over the entire circumference of the cylinder.

3.   The system of claim 2 wherein the cutting blade assembly comprises a first cutting blade mounted to the outer surface of the cylinder and extending over approximately one half of the circumference of the cylinder, a second blade mounted to the outer surface of the cylinder and extending from the first cutting blade and over approximately the other half of the circumference of the cylinder, a third cutting blade mounted to the outer surface of the cylinder and extending in a spaced parallel relationship to the first and second blades, and over approximately one half of the circumference of the cylinder, and a fourth blade

mounted to the outer surface of the cylinder and extending from the third first cutting blade and over approximately the other half of the circumference of the cylinder.

4.   The system of claim 3 wherein the cutting blade assembly comprises a fifth cutting blade extending over the circumference of the cylinder and adapted to make a continuous longitudinal cut down the center of the strip.

5.   The system of claim 1 wherein the patterns are dragon tooth patterns.

6.   The system of claim 1 wherein each series of cutting blades cuts a first pair of shingles, each shingle having a plurality of tabs extending in the spaces between adjacent tabs of the other shingle; and a second pair of shingles laterally spaced from the first pair, each shingle of the second pair of shingles having a plurality of tabs extending in the spaces between adjacent tabs of the other shingle of the second pair of shingles.

7.   The system of claim 6 wherein the blades are configured so that at least a portion of the tabs of each shingle are different from the tabs of at least a portion of the other shingles.

8.   The system of claim 6 wherein the blades are configured so that the tabs of each shingle are different from the tabs of the other shingles.

9.   The system of claim 6 or 7 wherein the difference is in the shape of the tabs.

10.   The system of claim 9 wherein the tabs vary in width and/or length.

11.   The system of claim 6 wherein at least a portion of the tabs of the same shingle are different.

12.   The system of claim 11 wherein the difference is in the shape of the tabs.

13.   The system of claim 11 wherein the different tabs vary in width and/or length.

14.   A method for cutting shingles from a continuous sheet of material comprising disposing cutting blades on the outer circumference of a cylinder, and rotating the cylinder with the blade engaging the sheet while effecting relative translational movement between the cylinder and the sheet so that eight shingles are cut from the sheet upon one rotation of the cylinder.

15.   The method of claim 14 wherein the step of disposing comprises mounting a first series of cutting blades to the outer surface of the cylinder and extending over approximately one half of the circumference of the cylinder which corresponds to the length of a shingle, and mounting a second series of cutting blades to the outer surface of the cylinder and extending over approximately the other half of the circumference of the cylinder, each series of cutting blades being configured to cut two patterns in the strip in a manner so that each pattern forms two shingles.

16.   The method of claim 15 further comprising mounting an additional cutting blade to the outer surface of the cylinder for making a continuous longitudinal cut down the center of the strip.

17.   The method of claim 15 wherein each series of cutting blades includes two spaced parallel blades, each of which cuts a pattern in the strip.

18.   The method of claim 17 wherein the patterns are dragon tooth patterns.

19. The method of claim 17 wherein each series of cutting blades cuts a first pair of shingles, each shingle having a plurality of tabs extending in the spaces between adjacent tabs of the other shingle; and a second pair of shingles laterally spaced from the first pair, each shingle of the second pair of shingles having a plurality of tabs extending in the spaces between adjacent tabs of the other shingle of the second pair of shingles.

20. The method of claim 19 further comprising configuring the blades so that at least a portion of the tabs of each shingle are different from the tabs of at least a portion of the other shingles.

21. The method of claim 19 further comprising configuring the blades so that the tabs of each shingle are different from the tabs of the other shingles.

22. The method of claim 20 or 21 wherein the difference is in the shape of the tabs.

23. The method of claim 20 or 21 wherein the tabs vary in width and/or length.

24. The method of claim 19 wherein at least a portion of the tabs of the same shingle are different.

25. The system of claim 24 wherein the difference is in the shape of the tabs.

26. The method of claim 24 wherein the different tabs vary in width and/or length.

27. A roof comprising a plurality of shingles laid on a support structure according to the following C = L/N +/- 3

where C is one of the course offsets, L is the length of each shingle, and N is the number of courses repeated during installation.

28.   The roof of claim 27 wherein all of the shingles have a tooth covering the area C +/- 3" from the left side of each shingle.

29.   The roof of claim 28 wherein all of the shingles have a gap between teeth in the area C +/- 3 " from the right side of each shingle.

30.   The roof of claim 27 wherein the sum of the offsets in the course repeat equal the shingle length.